

**NORTH CAROLINA DIVISION OF
AIR QUALITY**

Application Review

Issue Date:

Region: Raleigh Regional Office
County: Vance
NC Facility ID: 9100082
Inspector's Name: Will Wike
Date of Last Inspection: 02/23/2016
Compliance Code: 3 / Compliance - inspection

Facility Data Applicant (Facility's Name): Kennametal Incorporated Facility Address: Kennametal Incorporated 139 Warehouse Road Henderson, NC 27536 SIC: 3399 / Primary Metal Products, Nec NAICS: 331492 / Secondary Smelting, Refining, and Alloying of Nonferrous Metal (except Copper and Aluminum) Facility Classification: Before: Title V After: Title V Fee Classification: Before: Title V After: Title V				Permit Applicability (this application only) SIP: 15A NCAC 2Q .0513 (renewal) NSPS: N/A NESHAP: N/A PSD: N/A PSD Avoidance: N/A NC Toxics: N/A 112(r): N/A Other: N/A			
Contact Data				Application Data			
Facility Contact Shelton Williams Analyst EHS Mfg (252) 430-3309 139 Warehouse Road Henderson, NC 27537	Authorized Contact Joseph Penkunas Plant Manager (252) 430-3314 139 Warehouse Road Henderson, NC 27537	Technical Contact Shelton Williams Analyst EHS Mfg (252) 430-3309 139 Warehouse Road Henderson, NC 27537	Application Number: 9100082.15A Date Received: 05/22/2015 Application Type: Renewal Application Schedule: TV-Renewal Existing Permit Data Existing Permit Number: 04328/T11 Existing Permit Issue Date: 06/13/2011 Existing Permit Expiration Date: 05/31/2016				
Total Actual emissions in TONS/YEAR:							
CY	SO2	NOX	VOC	CO	PM10	Total HAP	Largest HAP
2014	---	0.4300	134.86	0.3400	0.0200	0.0427	0.0335 [Hexane, n-]
2013	---	0.4300	216.01	0.3400	0.0200	0.0858	0.0432 [Toluene]
2012	---	0.4300	238.53	0.3400	0.0200	0.0852	0.0654 [Hexane, n-]
2011	---	0.4300	216.83	0.3400	0.0400	0.0669	0.0420 [Hexane, n-]
2010	---	0.4300	160.01	0.3400	0.0300	0.0646	0.0340 [Hexane, n-]
Review Engineer: Richard Simpson Review Engineer's Signature: _____ Date: November ##, 2016					Comments / Recommendations: Issue: 04328/T12 Permit Issue Date: November ##, 2016 Permit Expiration Date: October 31, 2021		

I. Purpose of Application

Kennametal Incorporated currently holds Title V Permit No. 04328T11 with an expiration date of May 31, 2016 for manufacturing various blends of tungsten carbide powder used in off-site metal products located in Henderson, Vance County, North Carolina. The primary purpose of this application is for permit renewal without a modification. The renewal application was received on May 27, 2015, which was at least nine months prior to the expiration date, as required by General Permit Condition 3.K. Therefore, the existing permit shall not expire until the renewal permit has been issued or denied. All terms and conditions of the existing permit shall remain in effect until the renewal permit has been issued or denied.

II. Facility Description

At the Henderson facility, Kennametal, Inc. (Kennametal) manufactures various blends of tungsten carbide powder that are shipped to other facilities (primarily other Kennametal facilities) for the production of metal cutting tools and other extremely durable metal products. The production of tungsten carbide powder generally consists of the following processes: (1) tungsten oxide powder is received and sent through an electric conversion furnace which converts the tungsten oxide to tungsten metal powder; (2) the tungsten metal is mixed with carbon black and sent through one of three electric carbonizing furnaces resulting in the tungsten carbide powder; and, (3) the tungsten carbide powder is blended with a variety of different compounds, such as cobalt and titanium carbide, in one of four milling rooms to produce the different blends of tungsten carbide powder to be shipped out. Either a spray dryer or a vacuum dryer is used to produce the final tungsten carbide powder. Spray drying is used approximately 85% of the time, as the final powder is easier to pour and produces less emissions. The facility currently has approximately 60 employees and operates 24 hours/day, and 7 days/week.

III. History/Background/Application Chronology

May 27, 2015 – Permit application **9100082.15A** was received for a Title V renewal.

October ##, 2016 – The facility, Raleigh Regional Office, and Stationary Compliance Section were requested by the Permitting Section to comment on the renewal. Comments were received and included in the permit.

October ##, 2016 – DRAFT permit sent to public notice and EPA for review prior to issuance. The 30-day public comment period ended **November ##, 2016** with the receipt of no comments. The 45-day EPA review period ended **November##, 2016** with the receipt of no comments.

IV. Permit Modifications/Changes and ESM Discussion

The following table describes the modifications to the current permit as part of the renewal process.

Page(s)	Section	Description of Change(s)
Cover and throughout	Throughout	Updated all tables, dates, and permit revision numbers.
Throughout	Throughout	Corrected the regulatory reference from 2D and 2Q to 02D and 02Q.
Attachment 1	Insignificant Activities List	Updated insignificant activity generators sources I.D. I-G1 and I-G2 from MACT to GACT since the facility is classified as a Title III minor facility.
Attachment 1	Insignificant Activities List	Updated new DEQ web link for GACT and MACT sources.
3	Section 1	Included column for page numbers.
3	Section 1	Updated Emission Source I.D. No. from CV-1 to CV-001 to be consistent with Section 2.1.C.
5 & 7	Section 2.1.B.2.a. and 2.1.C.2.a	Added “[15A NCAC 02D .0521(d)]” to the end of the referenced regulation.
5	Section 2.1.B.2.c.	Changed wording from assure to ensure.
8	Section 2.1.C.(1.c. and 2.c.)	Changed wording from assure to ensure.
8	Section 2.2.A.(1.e. and 2.c.)	Changed wording from assure to ensure.
12-21	General Conditions	Updated to latest version of DAQ shell version 4.0 12/17/15.

There were no changes made to the Title V Equipment Editor (TVEE) under this permit renewal.

V. Regulatory Review

The facility is currently subject to the following regulations:

15A NCAC 2D .0515, Particulates from Miscellaneous Industrial Processes
15A NCAC 2D .0521, Control of Visible Emissions
15A NCAC 2D .0958, Work Practices for Sources of Volatile Organic Compounds
15A NCAC 2D .1100, Control of Air Toxics
15A NCAC 2D .1806, Control and Prohibition of Odorous Emissions
15A NCAC 2D .1111, Generally Achievable Control Technology (40 CFR 63, Subpart ZZZZ)
15A NCAC 2Q .0317, Avoidance Conditions (for 15A NCAC 2D .0530, Prevention of Significant Deterioration)
15A NCAC 2Q .0711, Emission Rates Requiring a Permit

There were no changes made to the applicable regulations under this permit renewal.

As an area source of hazardous air pollutants, this facility is subject to the GACT component of the RICE MACT (40 CFR 63, Subpart ZZZZ) as part of 15A NCAC 2D .1111, Maximum Achievable Control Technology. The renewed permit includes this GACT designation as appropriate.

VI. NSPS, NESHAPS/MACT, PSD, 112(r), CAM

NSPS – The Permittee is not currently subject to any New Source Performance Standards (NSPS). This permit renewal does not affect this status.

NESHAPS/MACT/GACT – The Permittee is subject to Generally Achievable Control Technology Standards (MACTs) for two natural gas-fired emergency generators identified as **(ID Nos. I-G1 and I-G2)**. The facility is classified as a Title III minor facility; therefore, the GACT portion of 40 CFR 63, Subpart ZZZZ is applicable to these existing, emergency generators less than 500 Hp located at an area source of HAPs. This permit renewal does not affect this status.

PSD – The Permittee is currently operating under a facility-wide emissions cap of 250 tons volatile organic compounds per year in order to avoid the applicability of 15A NCAC 2D .0530, Prevention of Significant Deterioration requirements. The current permit requires that the Permittee calculate monthly VOC emissions based on material usage and VOC content of the materials. In addition, inspection and maintenance activities are required for the sources controlled by condensers as VOC control. Semi-annual reporting of all monthly calculations and inspection and maintenance activities is also required. This permit renewal does not affect this status.

112(r) – The Permittee is not subject to Section 112(r) of the Clean Air Act requirements because it does not store one or more of the regulated substances in quantities above the thresholds in the Rule. This permit renewal does not affect this status.

CAM – 40 CFR 64 requires that a compliance assurance monitoring plan be developed for all equipment located at a major facility, that have pre-controlled emissions above the major source threshold, and use a control device to meet an applicable standard. CAM was found not to be applicable for all control devices because potential uncontrolled emissions were below the applicability threshold. This permit action does not affect this status.

VII. Facility Wide Air Toxics

The facility is subject to both modeled emission rates (ammonia from BL-001) per 15A NCAC 2D .1100 and toxic pollutant emission rates (toluene, n-hexane, hexane isomers, benzene, nickel metal, and chromium facility wide excluding BL-001) per 15A NCAC 2Q .0711. This permit renewal does not affect this status.

VIII. Facility Emissions Review

There is no change in Title V potential emissions for this renewal. Actual emissions from previous years are listed on Page 1. This permit renewal does not affect this status.

IX. Compliance Status

The facility was issued a Notice of Deficiency (NOD) on May 27, 2016 for failing to submit the 2016 first quarter report containing the hourly tungsten oxide output rate, resulting hourly ammonia emissions, the hourly furnace process rate. The facility responded to the NOD and corrective actions were immediately initiated by the facility.

The facility was last inspected by Will Wike of the RRO on February 23, 2016. Based on his observations the facility appeared to be in compliance with their Title V permit requirements.

X. Public Notice/EPA and Affected State(s) Review

A thirty-day public notice period and a forty-five day EPA review period is required for the renewal of the Title V permit. A notice of the DRAFT Title V Permit shall be made pursuant to 15A NCAC 02Q .0521. The notice will provide for a 30-day comment period, with an opportunity for a public hearing. Copies of the public notice shall be sent to persons on the Title V mailing list and EPA. Pursuant to 15A NCAC 02Q .0522, a copy of each permit application, each proposed permit and each final permit pursuant shall be provided to the EPA. Also pursuant to 02Q .0522, a notice of the DRAFT Title V Permit shall be provided to each affected State at or before the time notice is provided to the public under 02Q .0521 above.

EPA's 45 Day Review period

Ms. Heather Ceron (U.S. EPA, Region IV) was provided a PROPOSED permit for review on October ##, 2016. EPA 45-day review period ended on November ##, 2016. No comments were offered or received.

Public Notice

The 30-day public notice of the proposed permit was posted on the NCDAQ website on October ##, 2016. No comments were offered or received.

XI. Other Regulatory Considerations

- A P.E. seal is NOT required for this application.
- A zoning consistency determination is NOT required for this renewal.
- Since this application was a renewal with no modification, no emission increases were noted for the PSD increment tracking purposes.

XII. Recommendations

The permit renewal application for Kennametal Incorporated in Henderson, Vance County, North Carolina has been reviewed by DAQ to determine compliance with all procedures and requirements. DAQ has determined that this facility is complying or will achieve compliance, as specified in the permit, with all requirements that are applicable to the affected sources. The DAQ recommends the issuance of Air Permit No. 04328T12.